

EFFECT OF HEMI-SYNC® ON DENTAL ANXIETY

by Christopher W. Beckner

Chris Beckner is a dentist in private practice in Hamilton, Ohio, specializing in periodontics, the treatment of gum diseases. He is also a certified hypnotherapist who uses hypnosis with dental treatment to promote patient relaxation. Dr. Beckner has just completed his first book, titled It's All in the Mind: A Guide to Happy and Healthy Living.

As a dentist, I am interested in providing the best possible healthcare for patients. As a hypnotherapist, I would like to teach people how to relax. Unfortunately, for many individuals relaxation and the dental visit are mutually exclusive concepts. Because of this, I continually look for ways to make the dental appointment less traumatic. If I can achieve this, my patients will be happier and my day will unfold much more smoothly.

One of the greatest stressors for the dentist is the fearful patient. Patient anxiety has posed a problem for both dentist and patient for many years. Researchers estimate that more than fifty percent of the population is not receiving regular dental care. Fear of the dental visit is a significant factor. Even many of the patients who visit the dentist regularly have at least some degree of apprehension. Therefore, I am interested in evaluating any noninvasive tools which may help reduce patient anxiety.

The purpose of this study was to observe and evaluate the effects of a Hemi-Sync® tape on patient anxiety during dental treatment.

For this purpose, I selected the *Sleeping Through the Rain* tape from the *METAMUSIC ARTIST* series for several reasons. First, the tape contains no verbalization, just music. While a verbally guided tape is fine in most situations, I felt it might be difficult to coordinate a forty-five-minute guided relaxation exercise with a thirty-minute appointment. Second, the low bass tones in *Sleeping Through the Rain* are excellent for drowning out the sound of the dental equipment, such as the handpiece, ultrasonic scaler, and suction machine. Third, it is my favorite *METAMUSIC* tape and I could recommend it highly. The musical composition is particularly relaxing, and the Hemi-Sync frequencies integrated within the music are designed to lead the listener into a deeply relaxed state.

During a five-month period, thirty patients were given the opportunity to use the Hemi-Sync tape during their appointments. I selected as potential subjects those patients I perceived to be comfortable with or receptive to the use of headphones. Teenagers and young adults (who presumably were familiar with using headphones) seldom hesitated to participate, while many older adults declined. To the patients invited to participate I explained that I was conducting

research to test the effects of music on the experience of the dental visit. Details about the Hemi-Sync technology were not shared unless the patient specifically expressed a desire to know them. Of the thirty patients asked, twenty-five chose to participate in the study and five declined. It is interesting to note that three or four of those who declined to use the tape tended to be extremely tense and anxious during their appointments. These people wanted to remain fully alert and “in control” during the procedure, and apparently feared that becoming too relaxed might prevent it. One or two of these five patients, however, were able to relax on their own.

The treatment performed with the twenty-five subjects was either periodontal scaling and root planing or periodontal surgery. Both procedures are done with a local anesthetic. Appointments lasted from one-half to two hours. It was rarely necessary to use any pharmacologic form of sedation, although occasionally nitrous oxide (laughing gas) was used.

Following their appointments, each of the twenty-five subjects was asked to give his or her subjective opinion and impression about the tape. I recorded my observations of each patient's behavior during treatment.

While responses naturally varied from one person to the next, the results can be loosely divided into three categories: (1) patients who experienced their attention being distracted from the procedure; (2) patients who experienced deep relaxation; and (3) patients who experienced neither distraction nor relaxation.

Category 1 primarily experienced distraction. This was the largest group, with twelve patients. They reported enjoying the tape because it allowed them to focus their attention elsewhere while their mouths were being worked on. Comments included that the tape “helped to take my mind off the treatment,” and that it helped to cover the sounds of the dental instruments. My observations of this group in general were that they appeared fairly relaxed and would alternate between having their eyes open and eyes shut during the appointment.

Category 2 primarily experienced deep relaxation. The eight patients in this group reported enjoying the tape tremendously, describing it as “very relaxing” and “a pleasure to listen to.” They stated often that they loved the music and were outspoken in their praise of it. Two or three patients commented that the music sounded ethereal, two patients fell asleep during the procedure, and two or three patients stated that the tape evoked emotions, although they did not elaborate on the content. I observed that in general this group remained physically relaxed during the entire treatment and often kept their eyes shut throughout the appointment.

Category 3 experienced no apparent effect. Comments from the five patients in this group included that the tape was “too boring” or “all right.” Most of the patients switched to the radio; two, in their early teens, never bothered to listen to the tape at all. Two patients stated that they thought the tape would be of more help to those who were nervous about coming to the

dentist. Two patients kept their eyes open throughout the procedure and their bodies often remained tense. They stated that the tape didn't make any difference one way or the other.

There are two primary ways that patients can effectively cope with the experience of dental treatment—relaxation and distraction. People who have learned to relax and distract themselves have a distinct advantage in dealing with some of the less pleasant aspects of life.

In my experience as a dentist, I have noticed that only about twenty percent of my patients have cultivated effective relaxation or distraction techniques which, when used during dental procedures, appear to promote relaxation and comfort. The remaining eighty percent continue to demonstrate or express some degree of tension and anxiety. In this informal study of twenty-five patients, the reverse occurred: eighty percent reported feeling relaxed or distracted with the tape, and only twenty percent reported no effect. My observations of their behavior corroborate their subjective statements.

Although I am not attempting to draw any conclusions from the results of this study, it is clear that the use of the Hemi-Sync tape had some positive impact on the experience of dental treatment.

Recently, I had some dental work done, and, having not had dental treatment for quite some time, I must admit it was very enlightening. Suddenly, I was the patient. The procedure itself was painless. I knew exactly what was being done and was not particularly nervous. Also, I am fairly adept at relaxation and self-hypnosis techniques. Nevertheless, I found it difficult to relax and, without a tape to listen to, I was on my own. As I attempted to concentrate on relaxing my body, my attention was drawn to the sound of the drill and the work being done on my tooth. Thinking to myself "This is a challenge to relax in the dental chair," I would have given anything to be "sleeping through the rain."

I will continue to offer the tape to patients in the future, and fully intend to take my headphones with me to my next appointment.

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